

## NOTES AND NEWS.

MR. W. J. V. OSTERHOUT is to spend the next college year in study in Germany.

MR. E. W. D. HOLWAY sailed for Europe on May 18th to be gone for sixty days.

THE *Kew Bulletin* for March contains the descriptions of ten new species of ferns (seven of them Polypodiums) from western China, and a long list of African novelties.

THE BOTANICAL collections made by Miss Mary E. Gilbreth were lately presented in her memory to Radcliffe College (Harvard Annex) by her mother, Mrs. Martha Bunker Gilbreth.

MR. A. P. ANDERSON, assistant in the Department of Vegetable Physiology in the University of Minnesota, has gone abroad to study, intending to remain two years, most of the time in Munich.

THE UNIVERSITY OF COLORADO dedicated on March 9th the Hale scientific building, of which the third floor is devoted to biology. The arrangements in the laboratory and museum are said to be "admirable in every respect."

MR. D. T. MACDOUGAL, in charge of vegetable physiology in the University of Minnesota, sailed on the City of Rome, May 25th, for Glasgow, to spend three months abroad. He will be for most of the time in Professor Pfeffer's laboratory at Leipzig where he may be addressed.

THE LEAFLETS of *Menyanthes trifoliata* are given as "entire or repand." It has recently been found with distinctly three-lobed leaflets. Again, although it is a constant feature, I have never seen any mention of the marginal glands at the crenatures of the leaflets.—W. W. BAILEY.

THE FOURTH annual session of the summer school at the University of Minnesota will begin July 29th and close August 23d, 1895. Two courses in botany will be conducted by Edmund P. Sheldon, instructor in botany in the University of Minnesota, and John M. Holzinger, instructor in botany in the State Normal School, Winona.

AT THE MEETING of the National Academy of Sciences in April, Professor Charles S. Sargent of Harvard University was elected to membership, and Professor Julius von Sachs of Würzburg, Germany, was made foreign associate. This is a good showing for botany, as only four members, and three foreign associates all told were elected at this session.

THE FIRST VOLUME of the *Conspectus Floræ Africanæ* (vol. V, Monocotyledones) by Th. Durand has recently been published. Whereas a volume of 500 pages was promised, it really contains 977 pages; nevertheless no increase has been made in the price (20 fr.) The remainder of the work will appear by half volumes. Vol. 1, part 2, will be published before autumn.



DR. O. UHLWORM (Terrasse Nr. 7, Cassel, Germany) editorially connected with the *Botanisches Centralblatt* and the *Centralblatt für Bacteriologie und Parasitenkunde*, desires the co-operation of American botanists in increasing the value of the bibliographical departments of these journals. He would be pleased to receive from authors copies of their articles on all botanical subjects pure or applied.

THE STATE of New York has set aside \$16,000 to be expended under the direction of Prof. L. H. Bailey of Cornell University, for conducting experiments in horticulture, discovering and remedying the diseases of plants, etc. This may reasonably be anticipated to yield much knowledge of value to the botanist as well as to the cultivator. The work is to be confined to the fruit-growing region of western New York, lying north and west of Cayuga Lake.

THE EIGHTH SEASON of the Marine Biological Laboratory at Wood's Hole, Mass., will be opened on June 1st. Instruction in botany will be in charge of W. A. Setchell, instructor in botany, Yale University, and W. J. V. Osterhout, instructor in botany, Brown University. Among special lecturers we note the following names of botanists: G. F. Atkinson, J. M. Coulter, J. M. Macfarlane, William Trelease, and W. P. Wilson.

DR. J. P. LOTSY associate in botany in the Johns Hopkins University, leaves at the end of the academic year to accept the position of assistant to Dr. Treub, the Director of the Botanic Gardens at Buitenzorg, Java. We hope this does not mean that the too slight recognition hitherto accorded to botany at Johns Hopkins is to be discontinued. It is very important that botanical instruction, and that of the best quality, be provided in an institution of such reputation as this. It is greatly to be desired, also, that the botanical side of the biological work be accorded its due prominence.

THE NEXT MEETING of the American Microscopical Society will be held at Cornell University, August 21-23, 1895, that is the week previous to the meeting of the American Association for the Advancement of Science at Springfield, Mass. Considering the geographical distribution of the members, Ithaca is as central a point as can be found for the meeting. The University buildings will be at the disposal of the Society. A good display of microscopical apparatus is promised. A special feature of the coming meeting will be the setting apart of one or more sessions for the reading of papers on methods and the demonstration of special or new methods. The chairman of the local committee is Prof. W. W. Rowlee.

SOME IMPORTANT notes on North American oaks have been published by Dr. C. S. Sargent in *Garden and Forest* (March 6th). A new white oak (*Q. Toumeyii*), from the mountains of southeastern Arizona, is described and figured; an examination of the type of *Q. grisea* Liebm. confirms Engelmann's opinion that it is a form of the polymorphous *Q. undulata*; a white oak of New Mexico and Arizona, heretofore mistaken for Liebmann's *Q. grisea*, is named *Q. Arizonica*; the great leaf variation of *Q. dumosa* is pointed out, including *Q. MacDonaldii* Greene, and Engelmann's var. *bullata* is changed to *revoluta*.



on account of preoccupation; Buckley's *Q. Durandii* becomes *Q. brevilobata*, Torrey's original varietal name being taken up; *Q. Muehlenbergii* Engelm. becomes *Q. acuminata*, a varietal name given by Michaux; *Q. ilicifolia* is replaced by *Q. nana*, the original varietal name of Marshall; and Chapman's *Q. obtusifolia parvifolia* becomes *Q. Chapmani*, the name *parvifolia* being antedated.

SUMMER COURSES in biology are offered by the University of Pennsylvania, under the direction of Dr. W. P. Wilson, commencing July 1st and closing on the 26th. The botanical instruction will consist of three five-lecture courses by Professor Macfarlane, Professor Halsted and Professor Wilson; lectures on special topics by eminent botanists among whom are: Prof. L. H. Bailey (two lectures on "How Garden Varieties Originate: a Study in Evolution") and Prof. G. L. Goodale (an address before the students on "The Relations of Certain Plants to Political Economy"). Thirty hours of laboratory practice in biology will be given and five lectures by Mrs. Wilson on biology from the standpoint of teachers in the elementary schools.

LAST SUMMER those interested in the Marine Biological Laboratory at Woods Hole, Mass., instituted a movement to raise an adequate and permanent endowment in order to place the laboratory on an independent basis. This country has no marine station to compare with those of other countries and this lack is a serious obstacle to both zoological and botanical advancement in the United States. The botanical work of this station is advancing rapidly. A separate frame building was added last year and Dr. Setchell of Yale is drawing some very prominent workers to the study of marine botany from the large institutions. The attention of all biologists is called to the pressing needs of the institution, the first of which is the construction of a permanent building in order that the laboratory may be kept open the entire year. The erection of even a modest building will require more money than can be raised among workers at the station and the Boston friends, and biologists everywhere are asked to contribute. Money in any sums may be sent to Dr. C. O. Whitman, Woods Hole, Mass.

IN *Science* (March 22d) the paper of Dr. C. S. Minot, read at the recent meeting of the American Society of Morphologists, on "the fundamental difference between plants and animals," is published in full. The formal definitions are as follows: "Animals are organisms which take part of their food in the form of concrete particles, which are lodged in the cell protoplasm by the activity of the protoplasm itself; plants are organisms which obtain all their food in either the liquid or gaseous form by osmosis (diffusion)." The interesting speculation is offered "that the absorption of solid particles of food is to be considered one of the most essential factors in determining the evolution of the animal kingdom." "The plant receives its food passively by absorption, and the evolution of the plant world has been dominated by the tendency to increase the external surfaces, to make leaves and roots. The animal, on the contrary, has to obtain at least the solid part of its food by its own active exertions, and to the effects, through natural selection, of the active struggle to secure food we may safely attribute a large part of the evolution of locomotor, nervous and sensory systems of animals." Of course the correctness of the definition depends upon the definition of "food" in the two cases.